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How Can Care Management Improve Patient Outcomes? Focus on Risk Stratification

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How Can Care Management Improve Patient Outcomes?

Focus on Risk Stratification

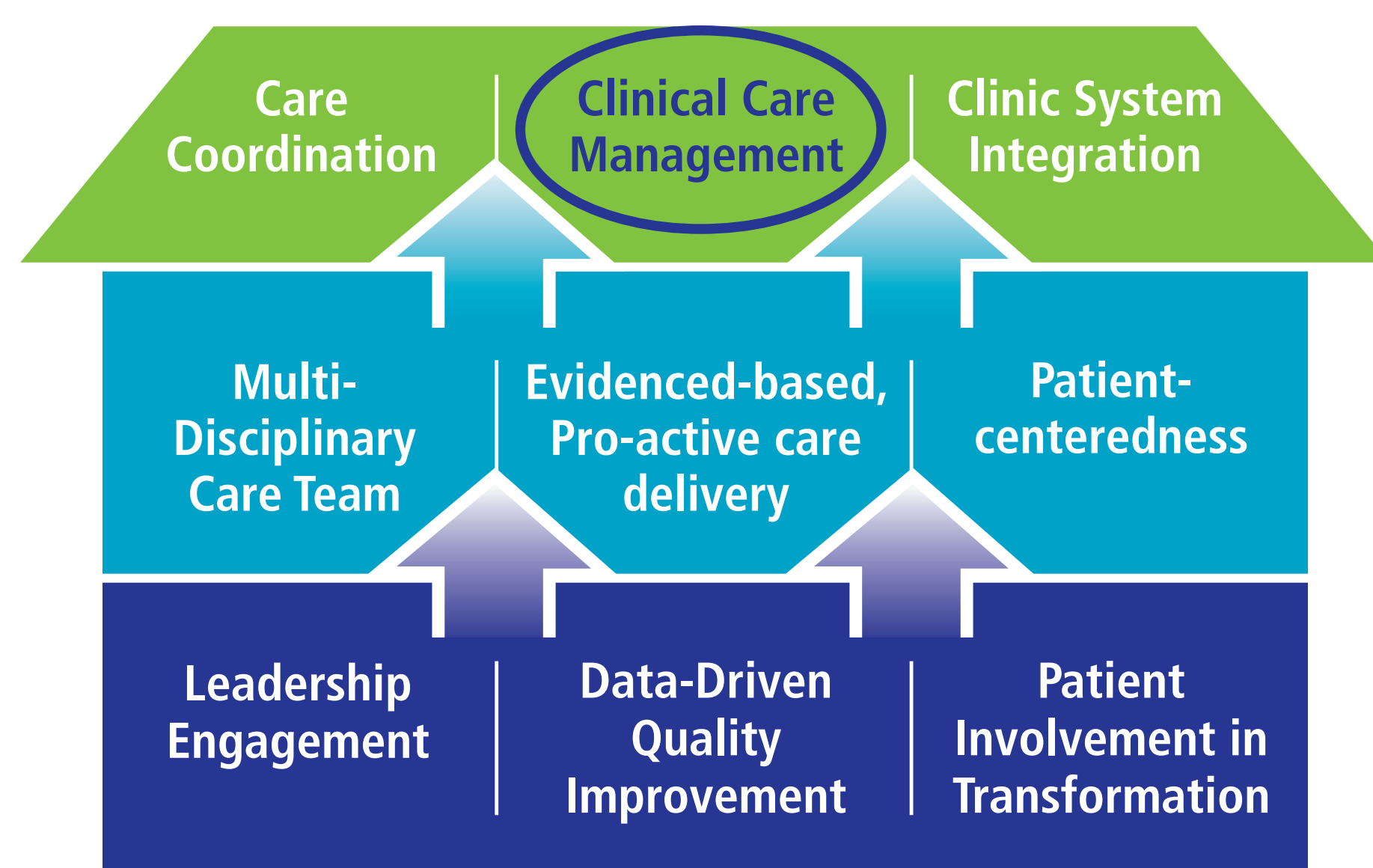
PROBLEM STATEMENT/BACKGROUND

Providing Clinical Care Management to the highest risk, most complex and costly patients is very important for primary care practices recognized as a Patient Centered Medical Home (PCMH). This is a new service for most primary care practices.

Identifying patients who would most likely benefit from Clinical Care Management services is an important first step. This will help direct the appropriate resources and interventions to mitigate risk and improve outcomes for individual patients and help practices achieve their PCMH goals.

AIMS

- Identify the key elements for practice-based Risk Stratification methods
- Identify approaches for measuring and evaluating effectiveness of Risk Stratification and Clinical Care Management at the practice level



Why Clinical Care Management?

- Half of US health care dollars are spent on 5% of the population¹
- Annual medical expenses for patients with both chronic medical and behavioral health conditions are 46% more than that of patients who have chronic medical conditions only²
- The top 10% of health care users consume 33% of ambulatory and approximately 50% of inpatient services²
- Overall, care integration helps to:³
 - Enhance holistic, patient-centered care
 - Improve overall health outcomes
 - Increase efficiency and access to care
 - Minimize stigma and discrimination
 - Reduce costs

Does Clinical Care Management Work? YES!

- PCMH practices had significantly reduced costs and utilization for the highest risk patients, particularly with respect to inpatient care⁴
- Reduced costs⁵
- Reduced hospital admissions and stays⁶
- Higher patient satisfaction⁷
- Reduction of depression symptoms⁸
- Improvements in blood glucose control⁹
- Improved health behaviors (e.g., exercise)¹⁰

Massachusetts Primary Care Reform Initiatives

| Massachusetts Patient Centered Medical Home Initiative (MA PCMH) | Primary Care Payment Reform (PCPR) |
|--|--|
| <ul style="list-style-type: none"> Multi-payer, statewide initiative Sponsored by Massachusetts Health & Human Services; legislatively mandated 46 participating practices 3-year demonstration: March, 2011 - March, 2014 Included payment reform and technical assistance | <ul style="list-style-type: none"> Single-payer Massachusetts Medicaid's flagship alternative payment program that will enable the move from fee-for-service reimbursement towards alternative payment models. Improve access, patient experience, quality, and efficiency through care management and coordination and integration of behavioral health. 30 participating practice organizations, approximately 50 sites 3-year project: March, 2014 - March, 2017 |

Clinical Care Management Population of Focus



Adapted from: ©MarColl Institute for Healthcare Innovation, Group Health Research Institute 2011.

Clinical Care Management Continuum of Care

Tracking, Coordinating & Managing Care of Highest Risk Patients across the "Continuum"



PRACTICE-BASED RISK STRATIFICATION APPROACHES

Primary Care Risk Stratification

- Helps a practice efficiently, systematically, and statistically better understand patients and their risk for future costs
- Provides information about which members may need clinical care management the most
- Employs utilization information such as hospitalization and ED use

Simplest Approach

- Ask providers which patients they are most concerned about – which patients they consider most at risk for:
 - Hospitalization/ED utilization
 - Sentinel events
 - Adverse outcomes
- Each provider identifies top 3-5% of their panel, or specified number of patients based on Clinical Care Management capacity

Some Criteria to Consider:

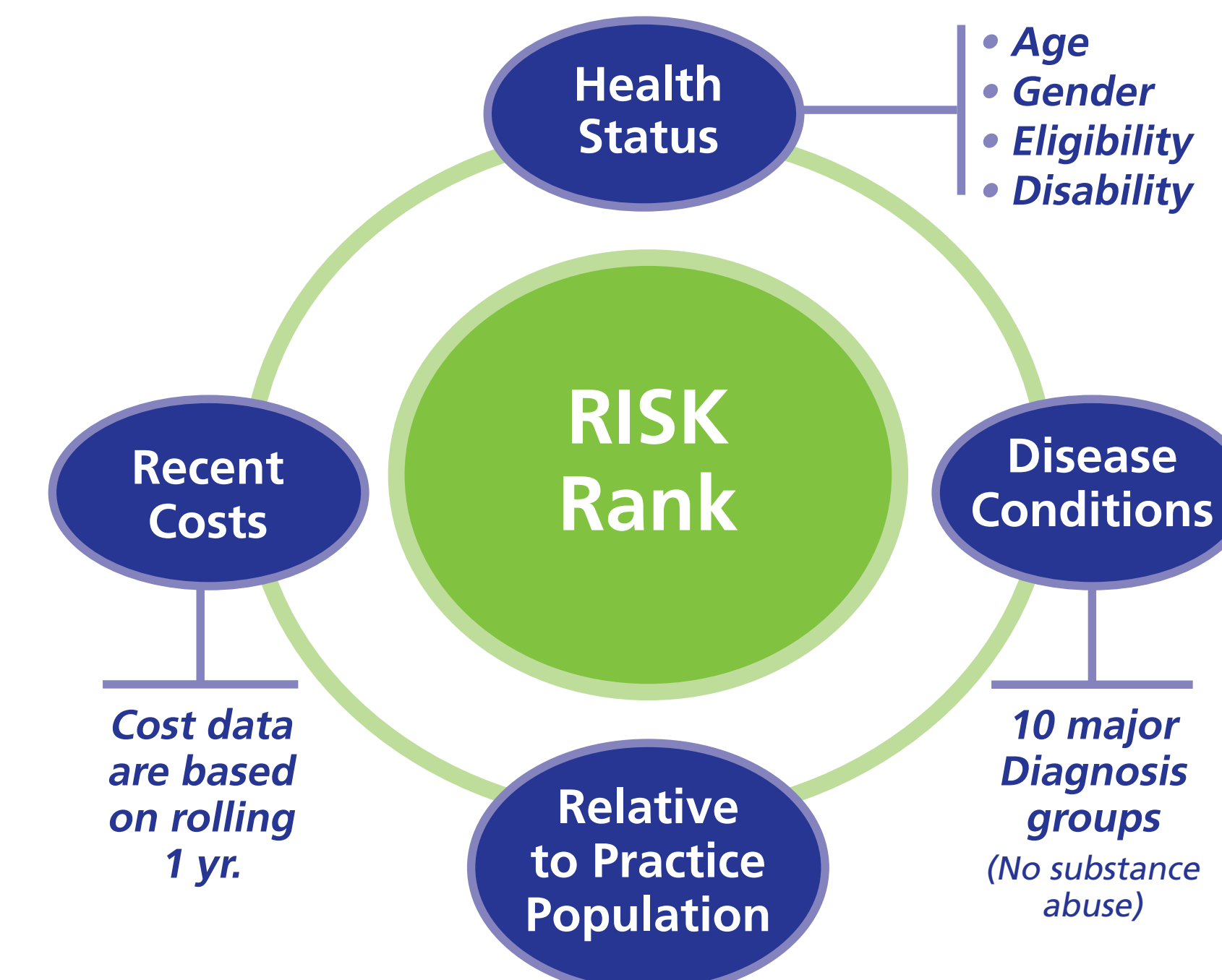
- Stratify patients based on:
 - Disease severity
 - Co-morbidities
 - Self-care deficits
 - Poly-pharmacy
 - Behavioral health issues
 - Socioeconomic factors
 - Healthcare utilization trends
 - Availability of family/social support mechanisms

Example of a Practice-Based Risk Stratification Tool: Patient Acuity Rubric

Care Coordination & Clinical Care Management Overlap & Differences...

| Care Coordination | Clinical Care Management = Care Coordination + |
|---|--|
| <ul style="list-style-type: none"> Track & assist patients across care settings Coordinate care & services Timely follow-up of ED visits & hospital discharges Exchange of information across care settings Smooth transitions of care Referral & information sharing protocols – Primary Care & Behavioral Health Providers Community service referrals | <ul style="list-style-type: none"> Care Plan development Frequent contact with patient Clinical assessment & monitoring Medication with reconciliation Intense medication management Self management support Patient teaching Development & implementation of the Integrated Care Plan Bi-directional communication with treating professionals |

Example of a Payer-Based Risk Stratification Tool: DxCG High Risk Ranking

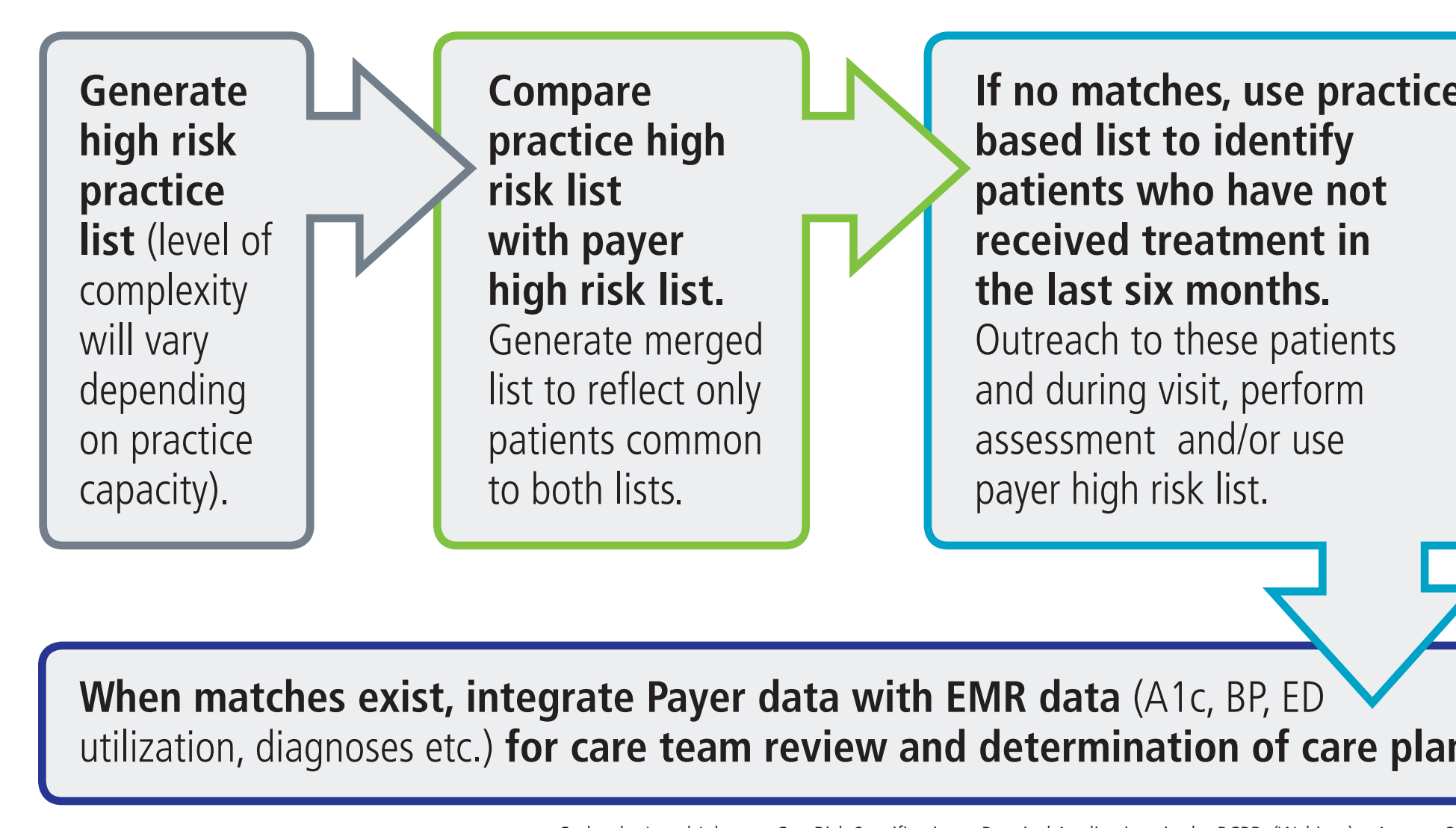


Advantages/Limitations of Payer Member Reports

| Advantages | <ul style="list-style-type: none"> Last primary care practice visit within six months ED and hospital utilization with diagnoses Most recent contact information |
|-------------|---|
| Limitations | <ul style="list-style-type: none"> Patients listed may not be priority of provider and team Month lag with utilization data No substance abuse utilization and diagnoses |

Carlevalle, J. and Johnson, C. – Risk Stratification – Practical Applications in the PCPR. (Webinar) – August, 2014.

Workflow Example – Combining Payer & Practice-based risk stratification data



Carlevalle, J. and Johnson, C. – Risk Stratification – Practical Applications in the PCPR. (Webinar) – August, 2014.

Risk Stratification in the MA PCMH

- PCMH practices prospectively generated a list of patients who might benefit from additional care using clinical measures and utilization information such as hospitalization and ED use
- Some practices developed risk stratification tools that integrated other practice-specific conditions of interest:
 - Co-morbidities
 - Self-care deficits
 - Poly-pharmacy
 - Availability of family/social support mechanisms
 - Behavioral health issues

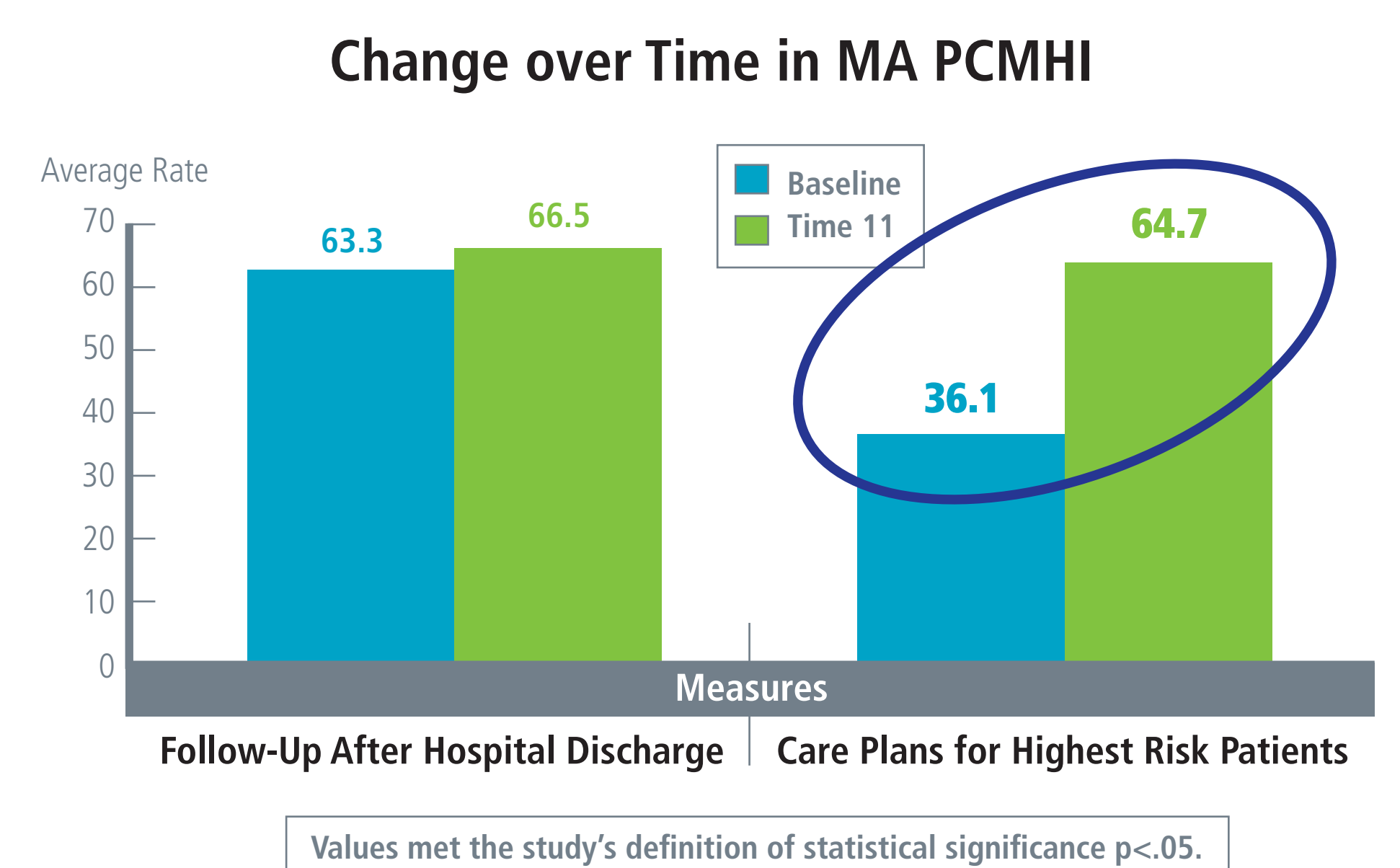
Risk Stratification in the PCPR

- PCPR participating practices are provided a **payer-generated list** of patients for whom additional care – either Care Coordination and/or Clinical Care Management services – is expected
- Practices also receive a **list of patients who are considered high risk** based on payer algorithm
- Practices conduct retrospective risk assessment on this list
 - Compare practice-based list with the two lists provided and generate a list of common patients
 - Integrate data sources for care team review and determination of care plan
 - If no common patients:
 - Use practice based list to identify patients who have not received treatment in the last six months & initiate outreach
 - Use payer high risk list exclusively to guide service delivery

Clinical Care Management Performance Metrics

- Change in patient acuity rubric score
 - Individual
 - For cohort over time
- Number of high risk patients in active Clinical Care Management
- Reduction in avoidable ED visits
- Reduction in avoidable inpatient admissions
- Number of patients in care management who are achieving individual patient-centered goals

Results: Care Coordination/Care Management Measures



SUMMARY

Risk Stratification is the foundational step in establishing delivery of practice-based clinical care management services.

- Allows practices to identify patients who would benefit most from clinical care management services
- Allows creation of a High Risk Registry based on practice and payer data and identification of patients who need integrated care plans
- Helps identify resources needed to support patients and families and to plan new workflows related to this process
- Helps practices assess effectiveness by developing applicable process and outcome measures that support patient and practice Clinical Care Management goals

REFERENCES

- Conwell L, Cohen AM. Characteristics of people with high medical expenses in the U.S. civilian non-institutionalized population, 2002. *Statistical Brief #73*. March 2005. Agency for Healthcare Research and Quality, Rockville, MD.
- Peterson SA, Phillips RL Jr, Bazemore AW, Dodo MS, Zhang X, Green LA. Why there must be room for mental health in the medical home. *American Family Physician*. 2008 Mar; 77(6):757.
- Kasper J, Watts MD, & Lyons B. Chronic Disease and Co-Morbidity among Dual Eligibles: Implications for Patterns of Medicaid and Medicare Service Use and Spending. Kaiser Commission on Medicaid and the Uninsured, 2010 July. Available at: <http://www.kff.org/medicaid/0801.cfm>
- Albert, E, Basco, C., & Schramm, E. (2011) A collaborative approach for the care management of geriatric patients. *Prof. Case Manage. Professional Case Management*, 16(2), 62-68.
- Hoggins, S., Chawla, R., Colombo, C., Snyder, R., & Nigam, S. (2014). Medical homes and cost and utilization among high-risk patients. *Am. J. Managed Care*. *American Journal of Managed Care*, 20(3), 461-471.
- Kirkman, M. S., Basore, S., Fedewa, S., Forbes, K., Kuebler, J., Adnan, T., & Sen, A. (2010). Long-term clinical outcomes of care management for chronically depressed primary care patients: a report from the depression in primary care project. *Annals of Family Medicine*, 8(5).
- Sohn, S., Helms, T. M., Pelletier, J. G., Muller, A., Klotzinger, A. L., & Schofield, O. (2012). Costs and Benefits of Personalized Healthcare for Patients with Chronic Heart Failure in the Care and Education Program "Telemedicine for the Heart". *Telemedicine Journal and e-Health*, 18(3), 198-204.
- Sweeney, L., Harpert, A., & Wainoff, J. (2007). Patient-centered management of complex patients can reduce costs without shortening life (MAACERBA). *American Journal of Managed Care*, 13(2).
- Taylor, C. B., Miller, N. H., Kelly, K. R., Greenwald, G., Canning, D., Deeter, A., & Abouali, L. (2003). Evaluation of a nurse care management system to improve outcomes in patients with complicated diabetes. *Diabetes Care*, 26(4), 1058-1063.
- Williams, J. W., Jr., Katon, W., Lin, E. H., Noel, P. H., Winkler, J., Cornet, J., ... Investigators, I. (2006). The effectiveness of depression care management on diabetes-related outcomes in older patients. *Annals of Internal Medicine*, 140(12), 1015-1024.